AMENDMENTS TO THE CLAIMS

Please cancel Claims 16-23.

1. (Original) A method of treatment, comprising:

identifying a human patient that is susceptible to ischemia; and

administering a sufficient amount of a nitroxide to prevent a harmful effect of ischemia in the human patient prior to the onset of ischemia.

2. (Original) The method of Claim 1, wherein the nitroxide is 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl.

3. (Original) The method of Claim 1, wherein the human patient's susceptibility to ischemia arises from a medical procedure associated with a significant ischemic risk.

4. (Original) The method of Claim 3, wherein the medical procedure is the treatment of a hemorrhage.

5. (Original) The method of Claim 3, wherein the medical procedure is the treatment of an aneurysm.

6. (Original) The method of Claim 5, wherein the medical procedure is surgery.

7. (Original) The method of Claim 5, wherein the medical procedure is an endovascular procedure.

8. (Original) The method of Claim 1, wherein the mode of nitroxide administration is selected from the group consisting of oral and intravenous administration.

9. (Original) A method of treatment comprising:

identifying a patient scheduled to undergo a medical procedure involving a significant risk of ischemia;

administering to the patient, prior to the medical procedure, a prophylactic amount of nitroxide;

performing the medical procedure; and

administering to the patient, a prophylactic or therapeutic amount of nitroxide to ameliorate a harmful effect of ischemia.

10. (Original) The method of Claim 9, wherein the nitroxide is 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl.

11. (Original) The method of Claim 9, wherein the medical procedure is the treatment of a hemorrhage.

12. (Original) The method of Claim 9, wherein the medical procedure is the treatment of an aneurysm.

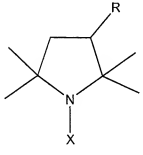
13. (Original) The method of Claim 9, wherein the medical procedure is surgery.

14. (Original) The method of Claim 9, wherein the medical procedure is an endovascular procedure.

15. (Original) The method of Claim 9, wherein the mode of nitroxide administration is selected from the group consisting of oral and intravenous administration.

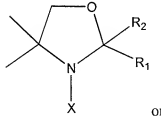
16-31 (Canceled)

32. (New) The method of Claim 1 wherein the nitroxide is selected from the group consisting of



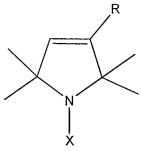
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH, and R is selected from COOH, CONH, CN, and $CH_2 NH_2$;



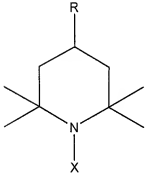
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH, and R_1 is selected from CH_3 and spirocylohexyl, and R_2 is selected from $C_2 H_5$ and spirocyclohexyl;



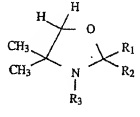
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH and R is CONH;



or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH and R is H, OH, and NH_2;



wherein R_1 is $-CH_3$; R_2 is $-C_2H_5$, $-C_3H_7$, $-C_4H_9$, $-C_5H_{11}$, $-C_6H_{13}$, $-CH_2-CH(CH_3)_2$, $-CHCH_3C_2H_5$, or $-(CH_2)_7-CH_3$, or wherein R_1 and R_2 together form spirocyclopentane, spirocyclohexane, spirocycloheptane, spirocyclooctane, 5-cholestane, or norbornane; R_3 is - O· or -OH, or a physiologically acceptable salt thereof which has antioxidant activity;

wherein R_3 is - O· or -OH; and

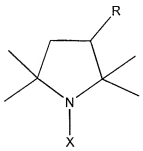
wherein R_4 and R_5 combine together with the nitrogen to form a heterocyclic group; wherein the atoms in the heterocyclic group (other than the N atom shown in the formula) may be all C atoms or may be C atoms and one or more N, O and/or S atoms; or

wherein R_4 and R_5 combine together to form substituted or unsubstituted pyrrole, imidazole, oxazole, thiazole, pyrazole, 3-pyrroline, pyrrolidine, pyridine, pyrimidine, or purine; or

wherein R_4 and R_5 themselves comprise a substituted or unsubstituted cyclic or heterocyclic group;

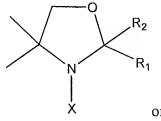
2-ethyl-2,5,5-trimethyl-3-oxazolidine-1-oxyl, 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), 4-amino-2,2,6,6-tetramethyl-1-piperidinyloxy (Tempamine), 3-Aminomethyl-PROXYL, 3-Cyano-PROXYL, 3-Carbamoyl-PROXYL, 3-Carboxy-PROXYL, 4-oxo-TEMPO, 4-amino-TEMPO, 4-(2-bromoacetamido) -TEMPO, 4-(ethoxyfluorophosphonyloxy)-TEMPO, 4-hydroxy-TEMPO, 4-(2-iodoacetamido)-TEMPO, 4-isothiocyanato-TEMPO, 4-maleimido-TEMPO, 4-(4-nitrobenzoyloxyl) -TEMPO, and 4-phosphonooxy-TEMPO.

33. (New) The method of Claim 9 wherein the nitroxide is selected from the group consisting of



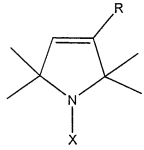
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH, and R is selected from COOH, CONH, CN, and CH_2NH_2;



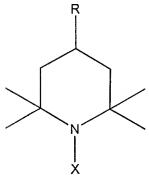
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH, and R_1 is selected from CH_3 and spirocylohexyl, and R_2 is selected from C_2H_5 and spirocyclohexyl;



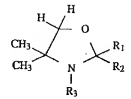
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH and R is CONH;



or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH and R is selected from H, OH, and NH_2;



wherein R_1 is $-CH_3$; R_2 is $-C_2H_5$, $-C_3H_7$, $-C_4H_9$, $-C_5H_{11}$, $-C_6H_{13}$, $-CH_2-CH(CH_3)_2$, $-CHCH_3C_2H_5$, or $-(CH_2)_7-CH_3$, or wherein R_1 and R_2 together form spirocyclopentane, spirocyclohexane, spirocycloheptane, spirocyclooctane, 5-cholestane, or norbornane; R_3 is - O· or -OH, or a physiologically acceptable salt thereof which has antioxidant activity;

wherein R_3 is - O· or -OH; and

wherein R_4 and R_5 combine together with the nitrogen to form a heterocyclic group; wherein the atoms in the heterocyclic group (other than the N atom shown in the formula) may be all C atoms or may be C atoms and one or more N, O and/or S atoms; or

wherein R_4 and R_5 combine together to form substituted or unsubstituted pyrrole, imidazole, oxazole, thiazole, pyrazole, 3-pyrroline, pyrrolidine, pyridine, pyrimidine, or purine; or

wherein R_4 and R_5 themselves comprise a substituted or unsubstituted cyclic or heterocyclic group;

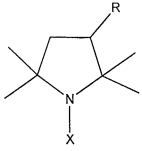
2-ethyl-2,5,5-trimethyl-3-oxazolidine-1-oxyl, 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), 4-amino-2,2,6,6-tetramethyl-1-piperidinyloxy (Tempamine), 3-Aminomethyl-PROXYL, 3-Cyano-PROXYL, 3-Carbamoyl-PROXYL, 3-Carboxy-PROXYL, 4-oxo-TEMPO, 4-amino-TEMPO, 4-(2-bromoacetamido) -TEMPO, 4-(ethoxyfluorophosphonyloxy)-TEMPO, 4-hydroxy-TEMPO, 4-(2-iodoacetamido)-TEMPO, 4-isothiocyanato-TEMPO, 4-maleimido-TEMPO, 4-(4-nitrobenzoyloxyl) -TEMPO, and 4-phosphonooxy-TEMPO.

34. (New) A method of treatment, comprising:

identifying a human patient that is susceptible to ischemia; and

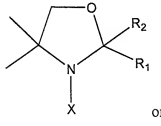
administering a sufficient amount of a nitroxide to reduce a harmful effect of ischemia in the human patient prior to the onset of ischemia,

wherein the nitroxide is selected from the group consisting of



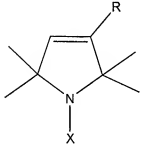
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH, and R is selected from COOH, CONH, CN, and CH_2NH_2;



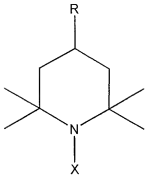
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH, and R_1 is selected from CH_3 and spirocylohexyl, and R_2 is selected from C_2H_5 and spirocyclohexyl;



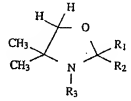
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH and R is CONH;



or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH and R is selected from H, OH, and NH_2;



wherein R_1 is $-CH_3$; R_2 is $-C_2H_5$, $-C_3H_7$, $-C_4H_9$, $-C_5H_{11}$, $-C_6H_{13}$, $-CH_2-CH(CH_3)_2$, $-CHCH_3C_2H_5$, or $-(CH_2)_7-CH_3$, or wherein R_1 and R_2 together form spirocyclopentane, spirocyclohexane, spirocycloheptane, spirocyclooctane, 5-cholestane, or norbornane; R_3 is - O· or -OH, or a physiologically acceptable salt thereof which has antioxidant activity;

wherein R_3 is - O· or -OH; and

wherein R_4 and R_5 combine together with the nitrogen to form a heterocyclic group; wherein the atoms in the heterocyclic group (other than the N atom shown in the formula) may be all C atoms or may be C atoms and one or more N, O and/or S atoms; or

wherein R_4 and R_5 combine together to form substituted or unsubstituted pyrrole, imidazole, oxazole, thiazole, pyrazole, 3-pyrroline, pyrrolidine, pyridine, pyrimidine, or purine; or

wherein R_4 and R_5 themselves comprise a substituted or unsubstituted cyclic or heterocyclic group;

2-ethyl-2,5,5-trimethyl-3-oxazolidine-1-oxyl, 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), 4-amino-2,2,6,6-tetramethyl-1-piperidinyloxy (Tempamine), 3-Aminomethyl-PROXYL, 3-Cyano-PROXYL, 3-Carbamoyl-PROXYL, 3-Carboxy-PROXYL, 4-oxo-TEMPO, 4-amino-TEMPO, 4-(2-bromoacetamido) -TEMPO, 4-(ethoxyfluorophosphonyloxy)-TEMPO, 4-hydroxy-TEMPO, 4-(2-iodoacetamido)-TEMPO, 4-isothiocyanato-TEMPO, 4-maleimido-TEMPO, 4-(4-nitrobenzoyloxyl) -TEMPO, and 4-phosphonooxy-TEMPO.

35. (New) The method of Claim 34, wherein the nitroxide is 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl.

36. (New) The method of Claim 34, wherein the human patient's susceptibility to ischemia arises from a medical procedure associated with a significant ischemic risk.

37. (New) The method of Claim 36, wherein the medical procedure is the treatment of a hemorrhage.

38. (New) The method of Claim 36, wherein the medical procedure is the treatment of an aneurysm.

39. (New) The method of Claim 36, wherein the medical procedure is surgery.

40. (New) The method of Claim 36, wherein the medical procedure is an endovascular procedure.

41. (New) The method of Claim 34, wherein the mode of nitroxide administration is selected from the group consisting of oral and intravenous administration.

42. (New) A method of treatment comprising:

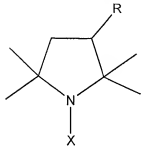
identifying a patient scheduled to undergo a medical procedure involving a significant risk of ischemia;

administering to the patient, prior to the medical procedure, a sufficient amount of a nitroxide to reduce a harmful effect of ischemia in the human patient;

performing the medical procedure; and

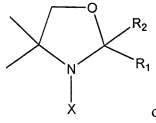
administering to the patient after the performing step, an amount of nitroxide to reduce a harmful effect of ischemia;

wherein the nitroxide is selected from the group consisting of



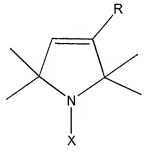
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH, and R is selected from COOH, CONH, CN, and $CH_2 NH_2$;



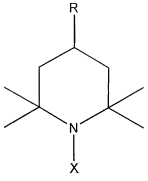
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH, and R_1 is selected from CH_3 and spirocylohexyl, and R_2 is selected from $C_2 H_5$ and spirocyclohexyl;



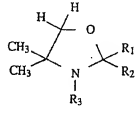
or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH and R is CONH;



or a pharmaceutically acceptable salt thereof

wherein X is selected from O• and OH and R is selected from H, OH, and NH_2;



wherein R_1 is $-CH_3$; R_2 is $-C_2H_5$, $-C_3H_7$, $-C_4H_9$, $-C_5H_{11}$, $-C_6H_{13}$, $-CH_2-CH(CH_3)_2$, $-CHCH_3C_2H_5$, or $-(CH_2)_7-CH_3$, or wherein R_1 and R_2 together form spirocyclopentane, spirocyclohexane, spirocycloheptane, spirocyclooctane, 5-cholestane, or norbornane; R_3 is - O· or -OH, or a physiologically acceptable salt thereof which has antioxidant activity;

wherein R_3 is - O· or -OH; and

wherein R_4 and R_5 combine together with the nitrogen to form a heterocyclic group; wherein the atoms in the heterocyclic group (other than the N atom shown in the formula) may be all C atoms or may be C atoms and one or more N, O and/or S atoms; or

wherein R_4 and R_5 combine together to form substituted or unsubstituted pyrrole, imidazole, oxazole, thiazole, pyrazole, 3-pyrroline, pyrrolidine, pyridine, pyrimidine, or purine; or

wherein R_4 and R_5 themselves comprise a substituted or unsubstituted cyclic or heterocyclic group;

2-ethyl-2,5,5-trimethyl-3-oxazolidine-1-oxyl, 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), 4-amino-2,2,6,6-tetramethyl-1-piperidinyloxy (Tempamine), 3-Aminomethyl-PROXYL, 3-Cyano-PROXYL, 3-Carbamoyl-PROXYL, 3-Carboxy-PROXYL, 4-oxo-TEMPO, 4-amino-TEMPO, 4-(2-bromoacetamido) -TEMPO, 4-(ethoxyfluorophosphonyloxy)-TEMPO, 4-hydroxy-TEMPO, 4-(2-iodoacetamido)-TEMPO, 4-isothiocyanato-TEMPO, 4-maleimido-TEMPO, 4-(4-nitrobenzoyloxyl) -TEMPO, and 4-phosphonooxy-TEMPO.

43. (New) The method of Claim 42, wherein the nitroxide is 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl.

44. (New) The method of Claim 42, wherein the medical procedure is the treatment of a hemorrhage.

45. (New) The method of Claim 42, wherein the medical procedure is the treatment of an aneurysm.

46. (New) The method of Claim 42, wherein the medical procedure is surgery.

47. (New) The method of Claim 42, wherein the medical procedure is an endovascular procedure.